

DWIGHT'S AMERICAN MAGAZINE,

AND

FAMILY NEWSPAPER.

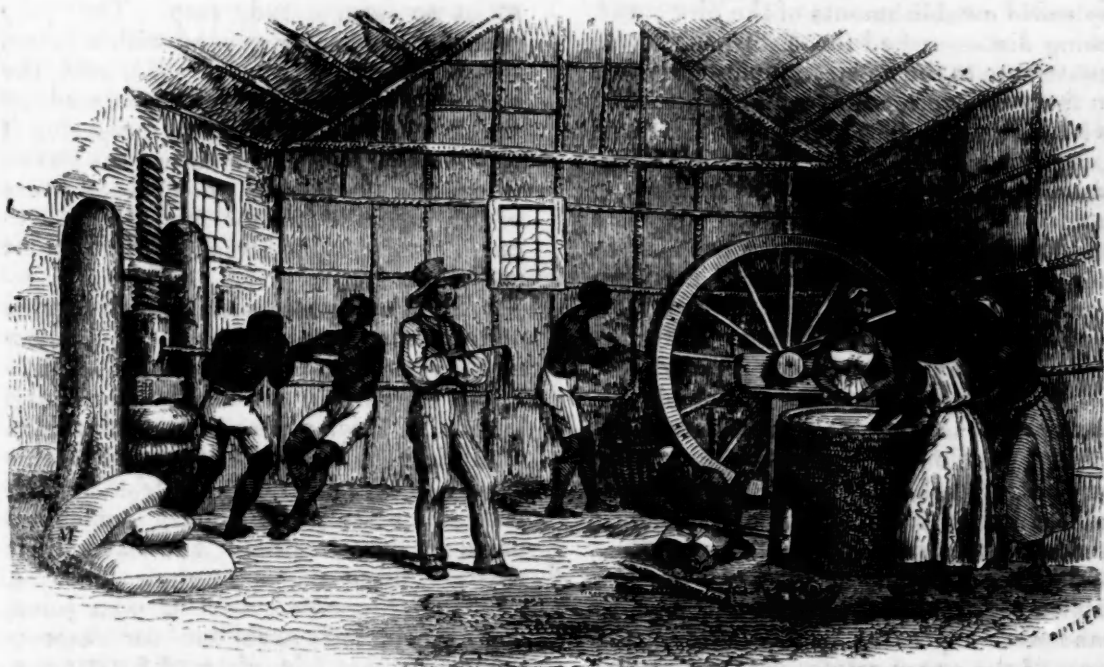
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THE PREPARATION OF MANDIOCA IN BRAZIL.

There are several varieties of farinaceous plants, which in certain countries form articles of food, but are so altered in form and appearance before they are seen in the market, that their origin and nature naturally excite our curiosity, and call for elucidation. Probably none of us have seen tapioca, arrow-root, panada or sago, without putting the inquiry raised by the Israelites in the wilderness, after the first shower of "bread from heaven:" "What is it?"

If curiosity is ever reasonable or commendable, it certainly may be so considered, when directed to objects of such intrinsic value as those articles which form the staff of life. Bread and its substitutes present to the eye a kind of simple beauty, in their purity of color, greatly enhanced by the association of healthfulness, and still more by feelings familiar to the minds of those, who habitually refer every good gift to the source from which it is derived. They are all of vegetable origin, but from different plants,

and prepared by different processes. Several are curiosities in our country.

Mandioca, or mandioc, is an article of the same class, which forms one of the chief supplies of food to the Brazilians. The print above presents a view of the interior of one of their rude manufactories in which it is prepared: and the following extracts, from Mr. Kidder's valuable book of Travels, will afford the reader a description of the different parts of the process, from which he will be able to understand the part performed by each of the laborers. The history of the art, and the lamentable abuse of the mandioca by distillation, are noticed in the passages we select from that work.

"Among the excursions we made in the vicinity of S. Paulo, not the least interesting was that to the ancient gold mines of Jaraguá. They are situated about three leagues distant, at the foot of a mountain. They have long since ceased to be regularly wrought, and are now the private property of a widow lady, being

situated upon a plantation embracing not less than a league square of territory.

"Senhora Donna Gertrudes was not only proprietress of this immense Fazenda, but also of six others of nearly equal value; two of which were situated still nearer the city, and all stocked with the requisite proportion of slaves, horses, mules, &c. She resided in one of the most splendid establishments of the city; and, being distinguished for a disposition to contribute to the entertainment of visitors to the province, had favored our company with a kind invitation to spend a little time at the Fazenda de Jaraguá, whither she would temporarily remove her household. It was a matter of peculiar pride to the Donna, that everything partaken at her table was the produce of her own soil.

"On the fazenda of Donna Gertrudes were cultivated sugar-cane, mandioca, cotton, rice, and coffee. Around the farm-house as a centre, were situated numerous out-houses, such as quarters for negroes, store-houses for the staple vegetables, and fixtures for reducing them to a marketable form.

"The *engenho de cachassa* was an establishment where the juices of the sugar cane were expressed for distillation. On most of the sugar estates there exist stilleries, which convert the treacle drained from the sugar into a species of alcohol called cachassa; but on this, either from its proximity to market, or from some other cause connected with profit, nothing but cachassa was manufactured. The apparatus for grinding the cane was rude and clumsy in its construction, and not dissimilar to the corresponding portion of a cider-mill in the United States. It was turned by four oxen. The fumes of alcohol, proceeding from this quarter, pervaded the entire premises.

"I was much interested in the manufacture of '*farinha de mandioca*'—mandioc flour. This vegetable (*Jatropha manihot* L.) being the principal farinaceous production of Brazil, is deserving of particular notice. Its peculiarity is the union of a deadly poison with highly nutritious qualities. It is indigenous to Brazil, and was known to the Indians long before the discovery of the country. Southey remarks: "If Ceres deserved a place in the mythology of Greece, far more might the deification of that person have been expected who instructed his

fellows in the use of mandioc." It is difficult to imagine how it should have ever been discovered by savages, that a wholesome food might be prepared from this root.

"Their mode of preparation was by scraping it to a fine pulp with oyster shells, or with an instrument made of small sharp stones set in a piece of bark, so as to form a rude rasp. The pulp was then rubbed or ground with a stone, the juice carefully expressed, and the last remaining moisture evaporated by the fire. The operation of preparing it was thought unwholesome, and the slaves, whose business it was, took the flowers of the 'nhambi' and the root of the 'urucu' in their food, to strengthen the heart and stomach.

"The Portuguese soon invented mills and presses for this purpose. They usually pressed it in cellars, and places where it was least likely to occasion accidental harm. In these places it is said that a white insect was found generated by this deadly juice, and itself not less deadly, with which the native women sometimes poisoned their husbands, and slaves their masters, by putting it in their food. A poultice of mandioc, with its own juice, was considered excellent for imposthumes. It was administered for worms, and was applied to old wounds to eat away the diseased flesh. For some poisons, also, and for the bite of certain snakes, it was esteemed a sovereign antidote. The simple juice was used for cleaning iron. The poisonous quality is confined to the root; for the leaves of the plant are eaten, and even the juice might be made innocent by boiling, and be fermented into vinegar, or inspissated till it became sweet enough to serve for honey.

"The crude root cannot be preserved three days by any possible care, and the slightest moisture spoils the flour. Piso observes, that he had seen great ravages occasioned among the troops by eating it in this state. There were two modes of preparation, by which it could more easily be kept. The roots were sliced under water, and then hardened before a fire. When wanted for use, they were grated into a fine powder, which, being beaten up with water, became like a cream of almonds. The other method was to macerate the root in water till it became putrid; then hang it up to be smoke-dried; and this, when pounded in

a mortar, produced a flour as white as meal. It was frequently prepared in this manner by savages. The most delicate preparation was by pressing it through a sieve, and putting the pulp immediately in an earthen vessel on the fire. It then granulated, and was excellent when either hot or cold.

"The native mode of cultivating it was rude and summary. The Indians cut down the trees, let them lie till they were dry enough to burn, and then planted the mandioc between the stumps. They ate the dry flour in a manner that baffled all attempts at imitation. Taking it between their fingers, they tossed it into their mouths so neatly that not a grain fell beside. No European ever tried to perform this feat, without powdering his face or his clothes, to the amusement of the savages.

"The mandioc supplied them also with their banqueting drink. They prepared it by an ingenious process, which savage man has often been cunning enough to invent, but never cleanly enough to reject. The roots were sliced, boiled till they became soft, and set aside to cool. The young women then chewed them, after which they were returned into the vessel, which was filled with water, and once more boiled, being stirred the whole time. When this process had been continued sufficiently long, the unstrained contents were poured into earthen jars of great size, and buried up to the middle in the floor of the house. The jars were closely stopped, and in the course of two or three days, fermentation took place. They had an old superstition, that if it were made by men, it would be good for nothing. When the drinking day arrived, the women kindled fires around these jars, and served out the warm portion in half-gourds, which the men came dancing and singing to receive, and always emptied at one draught. They never ate at these parties, but continued drinking as long as one drop of the liquor remained; and having exhausted all in one house, removed to the next, till they had drunk out all in the town. These meetings were commonly held about once a month. De Lery witnessed one which lasted three days and three nights. Thus man, in every age and country, gives proof of his depravity, by converting the gifts of a bountiful Providence into the means of his own destruction.

"Mandioca is difficult of cultivation—the more common species requiring from twelve to eighteen months to ripen. Its roots have a great tendency to spread. It is consequently planted in large hills, which at the same time counteract this tendency, and furnish the plant with a dry soil, which it prefers. The roots, when dug, are of a fibrous texture, corresponding in appearance to those of trees. The process of preparation at Jaraguá, was first to boil them, then remove the rind, after which the pieces were held by the hand in contact with a circular grater turned by water power. The pulverised material was then placed in sacks, several of which, thus filled, were constantly subject to the action of a screw-press for the expulsion of the poisonous liquid. The masses, thus solidified by pressure, were beaten fine in mortars. The substance was then transferred to open ovens, or concave plates, heated beneath, where it was constantly and rapidly stirred until quite dry. The appearance of the farinha, when well prepared, is very white and beautiful, although its particles are rather coarse. It is found upon every Brazilian table, and forms a great variety of healthy and palatable dishes. The fine substance deposited by the juice of the mandioca, when preserved, standing a short time, constitutes tapioca, which is now a valuable export from Brazil.

"Considerable discussion is found in Southey and other writers on the question, whether a species of mandioca, destitute of poisonous qualities, is to be found in Brazil. Whatever may have been the fact in former times, that species ('*Manihot aipim*') is now common, especially at Rio, where it is regarded as little inferior to the potatoe, being boiled and eaten in the same manner. It has the farther advantage of requiring but eight months in which to ripen, although it is not serviceable in the manufacture of farinha.

"Our social entertainments at Jaraguá were of no ordinary grade. Any person looking in upon the throng of human beings that filled the house when we were all gathered together, would have been at a loss to appreciate the force of a common remark of Brazilians respecting their country, viz: that its greatest misfortune is a want of population."—*Kidder's Brazil*

Vindication of Ptolomy's Geography.

The apparent mistakes of Ptolomy, in placing certain tribes in an opposite part of Arabia from that which in reality they occupied, is explained by the now discovered fact, that portions of the same tribe are actually found in both localities, viz. the Catabeni or Cottabeni of Oman and Yemen. But, by a discovery, Mr. Forster has succeeded in vindicating this ancient geographer from more serious error, in his delineation of the southern and eastern portions of Arabia, hitherto involved in apparently inextricable confusion. It has been generally supposed that Ptolomy has blundered in filling up the uninhabited deserts of Al Ahkaf with towns, and by dislocating the sites of the provinces and towns in Hadramaut, Oman, and the Bahrein. Mr. Forster shows that the confusion is attributable, not to Ptolomy, but to Mercator, who professed to project his chart after the description of that geographer. It must be borne in mind, that Ptolomy's method is, in the first instance, to follow the coast from the head of the Arabian Gulf, round to the head of the Persian, before he describes the interior. Now, in delineating his descriptions, several misapprehensions occurred. In the first place, the two long reaches of strand on the southern coast of Yemen, designated by Ptolomy the "Great and the Little Strand," which modern surveys show to be 100 miles in length, were mistaken by Mercator for two towns, close to one another. Again, the Mountains of the Moon, beyond the Syagrian Promontory, (which is identified with Cape Fartash,) instead of stretching eastward round the coast in a semi-circle, (whence their name), embracing a coast of 120 miles long, are made by Mercator to run inward. Thus, by these two mistakes alone, there is made a contraction, on the southern coast, of at least 220 miles. From this and similar blunders, the hypothenuse of the Arabian triangle is diminished, and, consequently, its sides brought to an approximation which Ptolomy never intended. And from "the invincible dislike to large blanks in a map," which actuates modern geographers, (to use the words of a writer quoted by Mr. Forster,) Mercator was induced to fill up the desert with names whose true position was much more

easterly. Hence the confusion which Mr. Forster has completely disentangled. Prolong the coast, and insert the desert of Al Ahkaf, and the names of the Alexandrine geographer all fall into their right places; and the correctness of his description will then appear, not only by a comparison with Pliny, and with the traditions and still existing names of the country, but with the chart lately executed by the surveyors of the whole Arabian coast, under the direction of the Indian government.—*British Reviewer.*

The Mariner's Compass.

The Washington papers contain a long account of the invention of a new compass, which points out the variation of the needle at all times and places, by Mr. J. R. St. John, of Buffalo. The improvement, it is said, is at once simple and effectual. It prevents all the difficulties and occasional inequalities from conductors and influences of any and every kind in the old compass, by showing the deflections of the needle from the true geographical meridian, whenever they occur, and from any cause whatever, even if the needle be deflected without attraction by hand, or if hung upon a pin, or any other cause. The improvement may be attached to the ordinary compass. The Navy Department has authorized Mr. St. John to construct one of his compasses, and as the Washington correspondent of the N. Y. Commercial Advertiser says: Henceforth, the fleur de lis is no longer to designate the North point on the mariner's compass. The American eagle is to be substituted for it by future navigators, in compliment to the country to which they will be indebted for a vast improvement in that instrument. The compass was, perhaps, used by King Solomon, and by the Tyrians before him; the Bourbons put their lily upon it, where it has since remained, with the assent of Christendom. The Chinese have, for a thousand years or more, sailed by the fiery dragon which now ornaments the card of their compass. The Yankees, who are determined to change the face of everything, in art and in empire, all over the world, have supplanted both the fiery dragon and the fleur de lis with their "goose and grid-iron." Lt. Maury, of the hydrographic office, says that "it is doubtful whether more shipwrecks occur from the effects

of unknown currents, or the secret effects of the variation."—*Selected*.

Rhetoricians and Grammarians.

1st. Those who were skilled in language were called, by the ancient Greeks and Romans, 'grammarians,' or 'philologists.' Their studies embraced every kind of literary productions, (*γραμμα*, writing), and whatever might be necessary to illustrate and explain them. But the grammarians, who were called also, at first, 'critics,' and by the Romans 'literati,' occupied themselves chiefly with the explanation and criticism of the earlier poets. They were distinguished from the grammatists, ('*grammatistæ*, literatores), by deeper and more extensive erudition; the grammatists treating mainly of the elements and rudiments of knowledge.

We find the first examples of scientific researches into language among the 'sophists,' who, in the age of Pericles, practised themselves in their schools, in the explanation of the poets, and particularly Homer, for the purpose of cultivating the taste, and exercising the critical powers; and their ingenuity was principally occupied upon difficulties of their own raising. By this practise, they taught their pupils to examine the laws of language accurately, and observe them carefully.

Some of the scholars of Socrates, especially Plato, also distinguished themselves by their illustrations of the poets. Aristotle, who is called the founder of criticism and grammar, made a revision of the Homeric poems for Alexander the Great, and attempted to purify them from interpolations. Before him, however, Pisistratus is related to have arranged the poems of Homer (q. v.), in the order in which they now stand, and Cynæthus of Chios, Antebachus of Colophon, Theagenes of Rhegium, and some others, had occupied themselves with the interpretation of Homer. But although some individuals have turned their attention particularly to the explanation, or the emendation, of the ancient authors, the science of language and criticism was carried to much greater perfection by the Alexandrian scholars. After Alexandria had become the seat of science, the rules of the Greek language, the laws of the interpretation of authors, and the explanation of mythology, the rules for the determination of the various readings, and

the particular merits of separate passages, or whole books, became subjects of study. The age of the Alexandrian grammarians is, therefore, the first period in the history of the ancient grammarians: they decided the relative rank of the authors who were to be considered as models of taste, revised some of their works, illustrated them with various researches, unravelled and explained mythology, composed lexicons upon individuals or upon bodies of authors, collected the rules of grammar, and judged the faults and merits of writings, which is the province of the higher criticism. To refer to remarks of different kinds upon the margins of the books, the grammarians made use of critical marks and signs. Different signs were used for different authors. Among the grammarians of this age, Didymus of Alexandria, who lived in the time of Augustus, deserves to be mentioned as a critic: he was surnamed Ironsides, because he wrote 4000 books.

The second period embraces the period of the new Platonists, who considered these objects of inquiry important enough to occupy their attention. The critics and grammarians of this age generally turned their attention more to the thoughts of authors and the contents of their works, than to the explanations of words or the laws of language. In all of them, the spirit of their scientific system, founded upon religion, is apparent; few of them penetrated the peculiar character of Grecian antiquity. This period commences with Plutarch of Chæronea, (A. D. 100), to whom some critical and grammatical writings are attributed, which are, however, unworthy of him.

The third period embraces those grammarians, mostly monks, who diligently compiled from the ancient authors, collected dictionaries from different writings, gave rules for preserving the purity of the Attic dialect from individual authors, or made annotations on the margins of manuscripts. Many grammatical works of this age are yet extant. This period includes those Greeks, who, fleeing from their country, first revived a taste for the study of Greek in Italy, at the end of the fourteenth, and particularly in the fifteenth century. Some collections of the Greek grammarians were made in the fifteen and sixteenth centuries.—*Encycl. Amer.*

Our Manufactures.

We are much gratified that the manufacturing interest of our country is everywhere prosperous and increasing. We learn through our exchanges that, at the new city of Merrimac, they are expending money by millions. At Springfield, a new company has been organized, as has been stated in a paragraph already published, which will absorb two or three millions of capital. It is an error, we learn, in this statement, that English capitalists are concerned in it. Only one of the leading men of the company is an Englishman, and he is about removing to this country. One of them is from Baltimore and one from Philadelphia.

In Pennsylvania, it is stated, that a large establishment, called the Clinton Iron Works, has been put in operation near Pittsburg. It contains eleven furnaces, and will consume twelve tons of pig iron per day in the manufacture of bar, boiler, sheet, and all sizes of small iron. A nail factory in one of the wings of the building has eight machines in operation. The fly wheel of the engine in use in the works weighs twenty-three tons, and measures 32 ft. in diameter.

Josiah Barber, Esq. is erecting a large carpet factory at Auburn. The building is five stories high, the basement used as a Machine shop, 150 feet long by 50 feet wide, and of sufficient capacity for 90 power looms, each of which can turn out 20 yards of carpeting a day, making 1800 yards daily. A power loom is to be used, invented by Mr. Avery Babbit of Auburn, said to be more simple in its construction, and consequently cheaper than those used at Lowell. The capital to be employed on the erections and business is to be \$100,000.

At Bangor, the Whig states that Messrs. T. & J. Collett find their orders for files greatly increasing, and they have now commenced the manufacture of files of various kinds. They have heretofore mostly confined themselves to the business of re-cutting old files, making them equal to new: but as the stock of old files has run short, and their cut of files being so much approved they have commenced the general manufacture, and will, we doubt not, increase it to an extensive business.

The immense increase of the Iron business is peculiarly gratifying. A late

number of the Pittsburg Gazette publishes the names of 'fifty-one' furnaces for smelting iron, all located upon the Allegheny river, and these independent of those furnaces on the 'canal.' We learn through its columns that:—

"There are now 12 rolling mills, 11 in operation, and the other in market for metal. These work up 75 to 100 tons per week, say 75 all around, or 900 tons per week. Then there are the host of foundries, one of which has melted 25 tons per day, and will average probably 100 tons per week. Should the mills run full time till Spring, the supply is a tolerable one, and no more; and were the new tariff not directly brought in as a weight on the market, it would speedily be cleared of all the iron on it.

The amount of iron in the shape of pig metal and blooms, annually marketed in Pittsburg, is about 'forty thousand tons;' all of which is here manufactured and distributed over half the Union, in iron fabrics of every description.

Probably no market out of Europe is capable of bearing so great an amount of iron at once as Pittsburg, and there is none on this continent where any thing like so heavy an amount is sold in so short a time. Pittsburg is emphatically the iron city of the Western World."—*Farmer and Mechanic.*

THE NEW STEAMSHIP.—The Sarah Sands, Capt. Thompson, is built of iron, finished in the most thorough manner, of 1300 tons burthen, and cost \$200,000. Her Main saloon vies with the most sumptuous drawing room, with couches covered with the richest crimson velvet. The pannelling, ornamental carved work and figures are elegant, with mirrors and paintings. She is a clencher built and double rivetted, has a clipper bow, and a handsome billet head. The length of the keel, 188 feet; length over all about 215 feet; beam 32 feet; depth of main deck, 19 feet 6 inches; height of spar deck, 7 feet 6 in. She has four masts. Her engines have cylinders 50 in. in diameter, with three feet stroke, rated at 200 horse power. Her bunkers will contain about 300 tons of coal, leaving room to stow 1000 tons of cargo. Her screw, which has four arms, is 14 ft. in diameter. When in good working order, she will probably make the eastern passage in 15 to 17 days, and the western in 18 or 20.

A Singular Sea-Fight.

On board the Peacock they witnessed a sea fight between a whale and one of its enemies. The sea was quite smooth, and offered the best possible view of the combat. First, at a distance from the ship, a whale was seen floundering in a most extraordinary way, lashing the smooth sea into perfect foam, and endeavoring apparently, to extricate himself from some annoyance. As he approached the ship, the struggling continuing and becoming more violent, it was perceived that a fish, apparently about twenty feet long, held him by the jaw, his contortious, spoutings and throes all betokening the agony of the huge monster. The whale now threw himself at full length upon the water, with open mouth, his pursuer still hanging to his under jaw, the blood issuing from the wound, and dyeing the sea for a distance around; but all his flounderings were of no avail; his pertinacious enemy still maintained his hold, and was evidently getting the advantage of him. Much alarm seemed to be felt by the many other whales around. These 'killers,' as they are called, are of a brownish color on the back, and white on the belly, with a long dorsal fin. Such was the turbulence with which they passed, that a good view could not be had of them to make out more nearly the description. These fish attack a whale in the same way that a dog baits a bull, and worry him to death. They are armed with strong, sharp teeth, and generally seize the whale by the lower jaw. It is said that the only part they eat of them is the tongue. The whalers give some marvellous accounts of these killers, and of their immense strength; among them, they have been known to draw a whale away from several boats which were towing it to the ship.—*Lieutenant Wilkes.*

DEPTH OF THE GULF STREAM.—Lieut. Bache who was lost in the surveying brig Washington, it is said, succeeded, after repeated attempts, in ascertaining at one point the depth of the Gulf Stream. The length of the line out was twelve hundred fathoms, or about 'one mile and a third.' This is probably nearly three-fourths of a mile deeper than plummet ever sounded before. The soundings of Captain Scoresby, and all

others, so far as we know, fall far short of this prodigious depth. Generally, the soundings for the coast survey extend to the edge of the Gulf Stream, and the water, as might be expected, always deepens where this tremendous current rolls along.—*Sel.*

Codfishing at Newfoundland.

We soon arrived at our fishery, and cast our lines of strong cord with a heavy leaden sink, and three or four hooks baited with slices of fish. In a minute or two there was a chorus of 'I've got him!' and as we pulled, the prizes plunged, dived and twisted, filling the dark green water with pale, distorted ghosts of sea monsters, which, as they neared the surface and became exhausted, condensed into the sober realities of resigned and unresisting codfish. Our myrmidon immediately put an end to their suffering by striking them on the head, with a short bludgeon which he called the 'priest.' He then cut off a piece of one to furnish fresh bait. By thus encouraging their cannibal propensities, we soon caught so many that we were heartily tired of the sport. To give us an idea of the innumerable multitudes of fish, the boatman cast a line with a heavy weight at the end, half a dozen hooks attached, full length into the water, until it had nearly reached the bottom, and then jerked it towards him. It seldom came up without a victim writhing on one of the barbs. Fully contented with this specimen of the truly national sport of Newfoundland, I reluctantly trusted myself to the mercy of my high trotting horse again, and he soon whirled me home.—*Chr. Alliance.*

RAILROADS IN THE PAPAL STATES.—The Journal des Debats publishes the following letter, dated Rome, 29th ult.—"The Roman Railroads are, it is said, to consist of six lines—1st, from Rome to the frontier of Naples; 2d, from Rome to Civita Vecchia; 3d, from Civita Vecchia to the confines of Tuscany; 4th, from Bologna to the frontiers of Tuscany; 5th, from Bologna to Ferrara; 6th, from Forli to Ravenna. These lines are to be executed by the State, in conjunction with private companies. The total length of these lines is estimated at 1,025 kilometres (620 miles), and the expense at £10,500,000, sterling."



THE FIG.

Our print represents the form of the fig leaf as modified by cultivation, being deeply lobed. The fruit is shown in two stages: as it appears soon after it has shot from the bark, and again when it has considerably increased, and approaches maturity. It has changed its size with no material change in shape or color. It is remarkable that while the banyan tree is the largest vegetable in the botanical kingdom, the figs it produces are very small as well as worthless. A fig common in Florida, according to Williams, bears a poor fruit, hardly half an inch in diameter.

It is not surprising that many historical incidents and legendary and mythological tales are connected with the fig. We find interesting allusions to several in the "Trees of America." The Romans had a partiality for it, and brought it to Italy from many of their conquered countries. Pliny the Elder, the father of natural history, mentions and describes twenty-nine varieties, and says that the fruit is the best restorative medicine after long sickness. He adds that wrestlers eat them to acquire great strength, and that they tend to render persons corpulent.

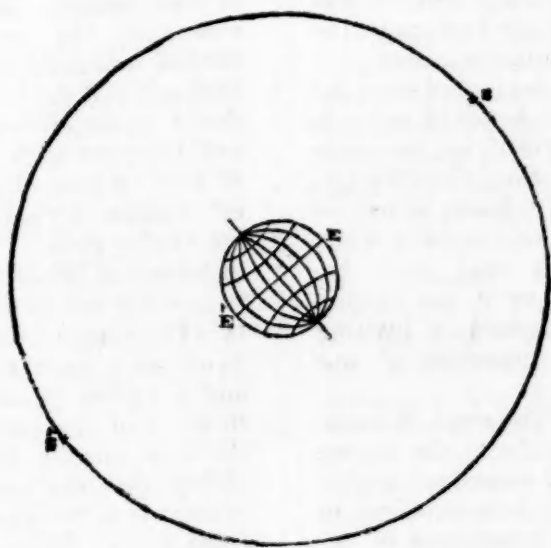
The following anecdote is one of the historical class. Cato, while urging the Roman senate to declare war against Carthage, held up an African fig, and asked, how long it had been plucked. All admitted that it was fresh; and he replied, "Yes, it is not three days since it was taken from the tree: see how near we

have a mortal enemy!" This argument urged Rome into the third Punic war, which proved the destruction of Carthage.

By again referring to Pliny, we learn that the fig tree must, at that time, have been but recently introduced at Carthage: for he says that, although the African figs were greatly admired, they had been cultivated in that country but a short time.

Some of the figs were named by the Romans after the persons who first brought them to Italy, or first cultivated them, or for some other reason. Livia, wife of Augustus poisoned her husband with one of a particular kind, which was thenceforth named the Livian fig.

THE CATALPA.—This beautiful and valuable tree, as we have before given notice, we have undertaken this year to propagate in the country. Having sent out, in 1845, and '46, about a million seeds of the Ailanthus, with a sketch of its history, and directions for its culture, and having numerous letters by us, returning thanks, and informing us of the flourishing condition of the young plants, we shall next place Catalpa seeds in the hands of many of those most likely to plant and cultivate them. They are remarkably well adapted to transmission by mail, being scarcely as large as a pin's head, and contained in very delicate wings, which grow in long pods, closely packed together. For a partial account of the Catalpa, (see Vol. II. p. 304.)



THE CIRCLES OF THE EARTH.--ASTRONOMY.

The reason why the parallels of latitude are often made to curve towards the equator E. E., is not always borne in mind by those who have studied geography. The object is to render visible the countries near the poles and the two sides of the globe. By such a curving of the parallels, those parts immediately under the eye are reduced, and the others enlarged, all on a regular plan, so that every feature may be laid down without confusion or dislocation, according to latitudes and longitude. In Mercator's chart these meridians are right lines: but lines of latitude are drawn nearer each other as they approach the poles, to make up for the undue extension of the meridians, which, on the globe, meet at the poles. Thus the area between any four of these lines contains its due extent, by gaining in longitude what it loses in latitude.

Many other points might be illustrated with this drawing before us. The horizon, E' S. might be used to explain the use of certain points in astronomy, while we might take the opportunity to allude to various circles which astronomers use, cutting it in various directions, the highly approved instruments now in their hands, &c. &c. But we shall defer these for a further occasion.

Astronomy is not behind her sister sciences in progress at the present day. A thousand eyes, in the civilised countries on earth, are fixed at night upon the heavens, with a new and extending acquaintance with the wonders which they contain: while many points of observation

have been occupied in remote, and even savage regions, from which men of science keep their solemn, silent night-watch, through glasses and with instruments furnished by the most skillful workmen of Europe. And all the results of these labours are communicated to the public as soon as they are ascertained.

A fine institution has lately been formed at Cincinnati, by the contributions of the friends of science in that city, assisted by those in some other parts of the country. After many exertions and some delays, the plans proposed by the society have been accomplished; and the Cincinnati Observatory has been opened, and furnished with a large telescope, which has already been put to use; and "The Sidereal Messenger," a monthly astronomical magazine, has been commenced, all under the direction of Professor O. M. Mitchell. This is the only popular publication in the world devoted to astronomy, from which the progress of the science can be learned by a common reader. What an advantage then, to have within our reach such a work as this! For the small sum of three dollars a year, any person may enjoy the great privilege of accompanying this noble, this sublime science in its progress, and accustom his mind to the contemplation of those glorious scenes which the heavens present to the eyes of those men, who watch them through the silent night, aided by the best instruments which human art has been able to produce.

It is somewhat surprising, and not less gratifying to find, that the first magazine wholly devoted to Astronomy, ever published in this country, has issued from the press in a town several hundred miles in the interior. This is so gratifying an example of the general diffusion of knowledge, and the appreciation of science, as well as of the power of individual exertion, when rightly directed, with zeal and becoming perseverance, upon the public mind, that we take pleasure in inviting to it the particular attention of our friends.

Every month the "Sidereal Messenger," appears among us, with the last reports from some of the most distinguished astronomers of all countries, often in their own words, and sometimes in recent private letters addressed to the editor, who has an extensive acquaintance and correspondence abroad.

'A Central Sun.'—Dr. J. H. Mædler, Director of the Observatory of Dorpat, has lately published a letter, in which he announces the discovery of what has long been sought for, viz. the existence of a central sun, round which revolve all the heavenly bodies in our part of the universe, if we may use such an expression. Professor Mitchell, in introducing this letter, remarks, that Mædler has been making researches on this subject for many years, 'involving a critical examination of all the catalogues of fixed stars from Bradley down to the present day.' Mædler announces his supposed discovery in these words:

"I therefore pronounce the Pleiades to be the central group of the entire system of fixed stars limited by the great stratum of the Milky Way; and 'Alcyone' as the individual star of that group, which combines the greatest amount of probability of being the true 'Central Sun.'

Astronomers have been led, or rather driven, to seek for a centre for the great body of known stars—"all the host of heaven,"—by Newton's great principle of gravitation. When that philosopher had fixed his mind for a while upon the falling apple, and meditated upon the cause of its motion, he began to look around him to see what other results it might produce. Downward and upward he extended his view, until he reached the planets in succession, and found them all bound, by the same invisible and mysterious bond, to the sun

in their centre. The same analogies and reasoning, the same conclusions have carried astronomers far beyond; but the delicacy and the complexity of the evidence on which every step must be placed, increase with the distance; and until now no man of reputation has ventured to claim any certain knowledge on the interesting point. What time will decide in favour of Mædler or against him, it is impossible yet to determine. He affirms that the computation of the orbits of the fixed stars proves that a common law and a centre of attraction exist among them; and, the greater the accuracy of the observations, the greater is the probability that the centre of the immense system is in the constellation of the Pleiades and in the star above mentioned; but yet it is by no means certain that the centre is not a point of space in its neighborhood.

'The Moon, and its Physical Constitution.'—In a number of the Sidereal Messenger is an interesting article on the Moon, by Professor E. Loomis, of the N. York University. He informs us that the Moon has a small faint twilight, which affords evidence that it has an atmosphere, whose denser portion may extend 1500 feet above its surface. He concludes however, that it must be thinner than the air in the exhausted receiver of the best French air-pump. A star in its occultation by the moon appears to suffer only a very slight refraction.

It is universally admitted that there are no large bodies of water in the moon. If there were no water, instead of being prevented from evaporating by the want of an atmosphere, it would flash into vapor on that very account, as it does in a Torricellian vacuum; and the evaporation would go on, until it had formed an atmosphere of the weight of two inches of mercury. Such an atmosphere would refract light; and therefore we may conclude that, as there is no considerable refraction, there can be no atmosphere and no water. Besides, the changes in crops, if there were any, would vary the appearance of the moon to us.

We may therefore presume, that if the moon has inhabitants, they must live independently of air, water, animals and vegetables like our own. It is an impressive thought, that the Almighty may have formed beings, intelligent and happy, wholly different from ourselves.

Magnetic Telegraph.

Several of our readers having expressed a desire for a particular account of the Magnetic Telegraph, we subjoin the following from a city paper. The use of the Telegraph we owe to our countryman, Professor Morse, who applied magnetism thus in 1832, five years before any thing of this kind was known in Europe.

The generator of the galvanic fluid consists of glass tumblers, of the size in common use, in each of which is a zinc hollow cylinder, reaching from the top to the bottom of the glass, and almost filling it up. From the top of the zinc cylinder projects a horizontal arm of the same metal, extending two inches beyond, to which is soldered platina foil 3 1-2 inches long, and half an inch wide, hanging vertically from the end of the arm. In the hollow of the zinc cylinder is placed a small porous cup three inches long and 1 1-4 inch in diameter. The glass tumbler is then filled with diluted sulphuric acid, and then the small cup filled with the pure nitric acid. Being thus prepared, the platinum of one glass is put into the small porous cup of the other, and so on through the whole series. The last glass at one end of the row has its platinum soldered to a strip of copper which terminates in a cup of mercury in a platform upon which the glasses stand. At the other end, the projecting arm has also a copper strip soldered to it, and terminates in a cup of mercury, in the same manner as the other end. These two ends constitute the negative and positive poles of the battery, which are at Washington.

From one of these cups of the mercury proceeds a copper wire, of the size of common bell wire, extending to Baltimore, upon poles 25 feet high, and 225 feet apart. Here it enters the Telegraph office, and passes around first one prong of a bar of iron, bent in the form of a horse shoe, and from that around the other prong, and then the wire returns to Washington upon the same poles as the other. At Washington the return wire, is soldered to a thin strip of brass, one end of which is fastened upon a pedestal, and the other end, with an ivory button upon it, stands over a brass plate of the size of a five cent piece, without touching it. To the under part of the brass plate is soldered a wire which extends to the other pole of the battery. The bat-

tery being now ready for action, you have but to place your finger upon the key and press it until it touches the brass plate below, and instantly the galvanic fluid flies its 80 miles. Take off the pressure of your finger, and instantly the fluid has ceased to flow.

We have alluded to the bar of iron bent to the form of a horse shoe at Baltimore, around which the main wires are coiled. It is not generally known that if a bar of soft iron is encircled with copper wire wound with some insulating substance like bonnet wire, and a current of galvanic fluid passes through the wires thus surrounding the iron, it becomes instantly a magnet. If the current is made to cease, the magnetism of the iron is gone. If, over the end of the two prongs of the bar of iron where it projects beyond the coils of wire around it, a small flattened straight bar of similar soft iron is placed, being hung upon one end of a lever, and the lever supported delicately upon pivots, so as to rise and fall—it is clear that whenever the bent iron is made a magnet, the iron directly over it, upon the lever, will be attracted down with considerable force. The lever recedes when the magnetism is destroyed, by means of a spring. On the other end of this lever are three steel points pointing upwards, and directly over them is a steel roller with grooves turned in it, corresponding to the three points, so that when they strike the roller by the power of the magnet, each of them falls into its own groove.

Between the three points and the steel roller, the paper passes at an uniform rate being drawn along by the two rollers, connected with the clock work, which is driven by a weight. The paper is in rolls 14 inches in diameter, and 1 1-2 inch wide, forming a ribbon of continuous length. This roll is placed upon a spool which turns easily upon its axis in front of the pen, as the paper is drawn off by the movement of the clock work. The alphabet is as follows:

| | | | | | | | |
|-----------|----|----|---|---|---|----|---|
| A | B | C | D | E | F | GJ | H |
| — | — | — | — | — | — | — | — |
| IY | K | L | M | N | O | P | Q |
| .. | .. | .. | — | — | — | — | — |
| R | SZ | T | U | V | W | X | |
| .. | .. | — | — | — | — | — | — |
| NUMERALS. | | | | | | | |
| | 1 | 2 | 3 | 4 | 5 | | |
| — | — | — | — | — | — | — | — |

6 7 8 9 0

We have now the battery and key at Washington, the wires from Washington to Baltimore, and the magnet and writing apparatus at Baltimore. At every touch of the key at Washington upon the plate below, however rapid, the fluid passes and ceases to pass, to Baltimore and back. At every passage of the fluid, the pen, by the attraction of the iron bars to the end of the magnet, is brought up against the paper with such force as to indent it, and instantly recedes—so that the paper moving over the pen receives a succession of dots, and an intermediate space. By holding the key down a little longer, a line is marked upon the paper. By this means, at the option of the operator at Washington, dots, spaces and lines of any combination, are made upon the paper at Baltimore with perfect ease.

At Washington the operator desires to inform his correspondent at Baltimore, that the 'Senate is in Executive Session.' Expressed thus: Sen. Ex. Sess. With the key he makes first eight rapid touches upon the brass plate, which at Baltimore notifies the attendant that the message is about to be sent, by ringing of a bell, which motion is produced in the same way as that of moving the pen. He then goes on to make dots in rapid succession, with spaces between them, a longer space, a dot ., a longer space, a line, space and dots thus is written —Sen., then follow, by the same mode, the dots, spaces, longer spaces and lines to finish the sentence, . — . Ex , Sess. — After the sentence is completed, the rapid succession of eight dots are made to signify that it is finished.

The clock work, which moves the paper, is started by the writer at Washington, by his removing, through the agency of a lever moved by the magnet, a break falling upon a smooth roller on the little fly wheel of the clock train— and stopped after the end of the message has run three inches from the pen, by the breaks falling upon the roller through the action of the clock work itself.

We have now described how messages may be sent from Washington to Baltimore, and it may be asked how is an answer returned? Imagine the same machinery, as has now been described, reversed, with the exception that there is

no battery in Baltimore, and the whole is complete for sending or receiving communications, either way.

We have said that from one of the poles of the battery in Washington a wire extends to Baltimore, and there encircling the iron bar, returns to Washington. The return wire is not absolutely necessary.

From the first commencement of the working of the Telegraph at Baltimore, but one of the wires upon the poles has been used. The wire, instead of going back to Washington after it leaves the coils, descends to the ground, and is soldered to a copper plate buried in the earth in Baltimore. At Washington, a copper plate of the same dimensions is buried in the cellar of the Capitol, from which a wire is taken and soldered to the key. So that the fluid travels upon one wire from Washington to Baltimore, and returns to Washington through the earth as its conductor.

Professor Morse has his alphabet so arranged upon a square board, that, by drawing aside, one letter is substituted for another, thus changing throughout the common alphabet. By this means a merchant in New York may write to his correspondent in Philadelphia without the possibility of its being intelligible to any one except the individual to whom it is addressed. Not even the writer upon the instrument in New York, or the attendant in Philadelphia, can describe it.—*Sci.*

SINGULARITY IN THE FRENCH DYNASTY. —It is a remarkable fact in the history of France, that since the time of Louis XIV. who succeeded his father Louis XIII., there has not been a single instance of the crown descending directly from father to son. Louis XV. was the grandson of Louis XIV.; Louis XVI. was one of the grandsons of Louis XV.; the son of Louis XVI. died (query, if not murdered in the temple.) Napoleon did not succeed in transmitting the crown to his only son, who died at Schoenbrunn. Louis XVIII., brother to Louis XVI., had his brother, Charles X., for his successor. The Duke of Orleans, Prince of Orleans, Prince Royal, was carried off by an accident as unexpected as it was deplorable. Philippe I. will not have, as his royal heir, a son; it is his grandson, the Count de Paris, son of the late Duke of Orleans.

The Condition and Prospects of Italy.

ITALIAN WRITERS.—Several writers of ability have recently arrived at a rank of the greatest influence among the Italians, and their own disposition and circumstances enable and incline them to exert their powers in favor of the improvement of their country. They are not merely the advocates of good principles and useful measures, but they have so strongly avowed their devotion to them, that they have been punished by exile, by the different sovereigns under whom they were born. However convenient their enemies may have found it to be rid of the presence of such men, and howsoever dangerous their example may have been thought at home, the ultimate effects of their exertion appears likely to be greatly increased by their banishment. Most of the learned and truly able men among the exiles from Italy, congregate at Paris and London; and there are afforded them the best possible facilities for maturing and correcting their opinions, with the best opportunities to produce writings adapted to act upon their country, and the strongest incitements to labor to the utmost in the great work to which they are devoted: the general and permanent improvement of their countrymen, in their intellectual, moral and civil condition.

If allowed to remain at home, they never could have formed an intimate acquaintance with each other, so natural a means of producing a spirit of unity in Italy; they never could have studied the present state of Europe from so commanding a point of view, or have looked as far forward into the future. At the same time the peculiar situation of an involuntary exile must furnish a daily stimulus to active labors, in favor of those changes in his own country, as necessary to his happiness as to that of his nation.

These reflections are naturally excited in the mind, by the perusal of some of the writings of such men; and, among those now before us, are several abounding in views, facts and arguments, interesting to every intelligent reader, and instructive even to those best informed of the condition of Italy. We may mention particularly Rossetti's "Rome near the middle of the 19th century," and Gino Capponi's "Late Occurrences in Romagna." These are small 18 mo. volumes, but nevertheless some of those pro-

ductions of the press which, instead of finding their way to the shelf, to be little read and less acted upon, fall immediately in every man's hands, excite every mind and preparing every one for action.

A Rich Apartment in the Tower of London.

There is an apartment in London, (in the Tower,) which contains the gold plate belonging to the crown of England. This plate does not include the royal jewels, but is estimated to be worth twelve millions of dollars. The articles are arranged in cases similar to those in a jeweller's shop.

Smith's Weekly Journal, of Philadelphia, gives an account of the principal articles of the collection, amongst which is a salver of an immense size, made from the gold snuff boxes alone of George the Fourth; the lids and inscriptions curiously preserved on the surface in a kind of mosaic of gold; its value is fifty thousand dollars. Near it are Nell Gwynn's bellows: the handles, nozzle, etc. of gold! the golden peacock inlaid with diamonds and rubies from Delhi: not as large as a pheasant, but valued at one hundred and fifty thousand dollars; the footstool of Tippoo Saib; a solid gold lion with chrystal eyes, the value of its gold seventy-five thousand dollars; George the Fourth's celebrated golden candelabras for a dinner table, valued at fifty thousand dollars, so heavy that two men are required to lift each; and piles upon piles of golden plates, sufficient to dine two hundred and fifty persons, with ample changes.

If the custode opens the long series of drawers for the curious visitor, there are seen 140 dozen of gold knives and forks of various patterns, and the same number of gold table and teaspoons! All manner of curious formations in gold meet the eye, both useful and useless, so that the mind gets but a confused idea of the riches presented to the sight. It requires a host of dependents to keep it clean, and the disbursing of wages to the poor for this service is the best advantage of this royal gold. Amongst the valuable objects shown in this gold room is a dinner service of silver gilt of the most gorgeous kind, presented by the merchants of Liverpool to the late William the Fourth, in reward, long before he was king, for his

'advocacy of the slave trade,' upon which was an inscription telling the horrible tale! Smith informs us, in his Journal, that the keeper who showed him all this gorgeous crown wealth, told him the occasion he had chosen was a poor time to see the plate, because fifty chests were removed to be used by the Queen at Buckingham Palace! He said it was an awful thing to have to get the plate out for a state dinner, it was so heavy; and the frequent changes made it a labour to the pages more onerous than the most over-tasked worker in iron. This may be readily believed, whilst the danger of theft must make the keeper's task yet more responsible.

NEWS.

From week to week, for sometime past, we have been hoping for better and more welcome subjects to speak of under this head: but the War continues in Mexico, with as little prospect of a speedy termination as ever; the new pope has disappointed all the hopes of the friends of Italy and the world, by denouncing the Bible, with the virulence of the Dark Ages; and the famine in Ireland and France, instead of finding relief, only increases, and Scotland also is suffering severely from want. We are compelled, therefore, unless we remain silent on recent events, foreign and domestic, to repeat much that will prove painful to every philanthropic heart.

The War in Mexico.—A letter from one of our countrymen at Monterey says that our army is quite too weak to proceed from that place; and Gen. Taylor, in a letter to Gen. Gaines, (lately published, as it appears, without the intention of the writer,) evidently thinks that it would be both unjustifiable and futile to attempt to gain more ground in that country. The Mexicans continue to show no disposition to yield or recede; and Santa Anna, although permitted by our government to return, if not indeed invited by them, with the expectation that he would traitorously use his influence in our favor, is still taking active measures against us. We went to war to secure a debt of two millions, and now the President asks Congress for three millions to purchase a peace. As we have spent about half a million a week for some months, it is not easy at present to decide how soon we

shall recover our debt. It is easy, however, to see the wisdom of that caution of holy writ: "Let not him that putteth on his armour boast as he that putteth it off."

The returns from many of the volunteer companies, are very sad and mournful. A few months ago many a young man departed from his friends and home with flying flags and beating drums, full of what he fancied to be the love of glory and patriotism. The story now brought back, in hundreds of instances, is, "discharged sick," "died of fever at Corpus Christi," "right arm shot off at Palo Alto," "killed and mutilated by rancheros," or "shot through the head at Monterey." Many a father and mother, brother and sister, in every state in the Union, has sad reason to reproach those who have beguiled inexperienced young men to their ruin, with the false name of spirit, glory and patriotism.

The Irish Poor are suffering severely, in consequence of the failure of the potato crop, and all the attempts made to relieve their wants, by making work for them, and by gratuitous supplies of food, have been totally inadequate. Distressing tales of death by starvation are told; and vessels are loading, and subscriptions making, in this city and elsewhere, to send cargoes of flour, meal, &c., for their relief. The sufferings in France are also extreme; and the government invite imports of food. Flour is now worth about \$8 a barrel in New York, and other breadstuffs in proportion. The greatest activity prevails in the country: farmers and merchants are bringing their stores of provisions towards the sea-coast; and the opening of navigation will doubtless produce an extraordinary scene in our city. But one nation can never feed another. All the ships of America could hardly carry food enough across the Atlantic to feed the sufferers in Ireland for a day.

Railroads.—It is proposed to make a railroad from New York to New Haven; and then only 55 miles, (from New Haven to Norwich), will be wanting to make one uninterrupted line from Portland, Me. to Augusta, Geo. Active measures are now used for a railroad from N. York to Albany.

The Andre Papers: It is proposed to publish the papers found on Major Andre, when he was arrested in the Highlands.

AGRICULTURAL.

THE WILD CHERRY, CERASUS VIRGINIANA VEL SYLVESTRIS.

This tree is a native of our forests. It is found from Maine to the highlands of Georgia. In the mild climates of Tennessee, Kentucky, Virginia and Ohio, where the soil is neither wet nor arid, it grows to the height of 70 to 80 feet, and with a diameter of 2 to 3 feet. In the forests of the Eastern States and New York it is rarely found higher than 70 feet with a diameter of one foot. That estimable citizen, Le Ray de Chaumont, formerly President of the New York State Agricultural Society, owned large tracts of land in Lewis and Jefferson counties of this State. So highly did he value cherry timber that he reserved it in his sales, to prevent it from being wasted in clearing the land. The qualities of the wood are well and generally known. It is extensively used for a great variety of purposes.

The bark of this tree is very bitter, and is much used in intermitting fevers. It is often administered at the rate of 35 grains for 30, as a substitute for Peruvian Bark. It is also used in the place of nut galls in making ink. Very considerable attention has been drawn to the medical properties of Wild Cherry bark that have been widely advertised and extensively used.

By cultivation the size of this cherry can be much enlarged. The fruit is very wholesome and is deserving of much greater attention than it has hitherto received. The tree is a favorite resort of caterpillars, but not objectionable on this account provided pains are taken to destroy them. The flowers and fruit in pendulous spikes afford a pleasing variety that recommends the tree as ornamental.—*Farmer and Mechanic.*

LIME.—Thousands of acres of choice land are now deserted in the Southern States, and hundreds in our own State, which might probably by the application of lime alone, be made to yield 100 bushels of wheat per acre.—*Id.*

VALUABLE PEARS.—Sometime during the first week in January, a barrel of superior pears was sold in this market for seven dollars, and they were retailed for \$1.50 per dozen, amounting to \$40. This was one of the best pears in the

season, and different from any generally cultivated in this region. Size about the same, or nearly as large, as the Bartlett, of a bright yellow color, with a bright red or vermilion color next the sun. The form was long, much the largest at the top or blossom end; the calyx or remains of the blossom large and very open; a large cavity at the stem, for a pear. The flesh rich, juicy, lively, and of a fine flavor, with considerable grit around the core. Having barely looked at it before it was cut and eaten, we do not attempt a minute or accurate description.

Our object is to learn who is the grower of said pear; (or who sold them in this market,) and if he sees this notice, and will give us an account of its origin, growth, production, &c., he will much oblige us; and if he will furnish some scions of the same, we will pay him well for them. Address Editors of the Cultivator, Boston. Editors of papers who will copy this article, may aid in introducing an excellent fruit; and confer a favor on an individual who does not know the value of his own fruit. Some say these pears came from New Hampshire, others that they came in on the Western Railroad.

[*Boston Cultivator.*]

CURRENTS.—This fruit is perhaps best propagated by slips. We usually have been in the habit of cultivating in this way in preference to any other, and we find that many of our exchanges recommend it as the easiest and most effectual method in which vines that will grow with rapidity and bearers of good fruit can be obtained. For this purpose we invariably select the young and vigorous suckers of the preceding year, and having properly prepared the soil, by digging in old and well rotted manure, we insert the slips in branches of from three to four individuals in a place—leaving a sufficiency of room between the slips to admit the easy introduction of the hoe without scarifying the bark. In this way the bushes often produce the first year after planting, and remain vigorous and productive for a long time. Old bushes should be carefully pruned every spring. The old wood is always to be removed, and the surface of the soil kept light and fecund by digging and manure.—*Maine Cultivator.*

POETRY.

To the Domestic Needle.

Thou burnished, busy bit of steel,
I do but tell thee what I feel,
When of the arts of human weal

I hail thee queen;
Thy ministers, the loom and wheel
Have always been.

They once enjoyed the fireside gleam,
When industry bore sway supreme,
And wives were more than some now seem
In strength and heart;
Of late, enslaved by flood and steam,
They work apart!

But though thy body-guard is gone,
And thou art left at home alone,
Thou shalt maintain thy rightful throne,
With work to do,
In spite of patents, be it known,—
And tailors too.

Thou hast a patent-right to bless,
Which Yankee wit can ne'er make less;
For better means it cannot 'guess,'
With all its crowing,
To cure the curse of nakedness,
Than simple sewing.

In truth it is thy glorious feat
To make creations's work complete;
And could there be a thing more meet
Than that thy power
In woman's hands should have its seat,
And be her dower.

They talk about a bow and quiver,
Hearts wounded by them to a fever,
And vows of love to last forever,—
Such is the riddle,—
But love, I think, must sometimes shiver,
Without the needle.

The real darts, I must declare,
Which pierce us from the real fair,
And bind us to them, pair and pair,
Are needles threaded
And plied by those to whom we are,
Or would be, wedded.

I envy not the latest fashion
In which the latest fool may dash on,
And which the tailor makes the cash on,
If but my fate is
To wear a coat the tender passion
Has made me gratis.

What if the fit be not commended,
Nor be the finish extra splendid,
If love with every stitch be blended,
'Twill fit the wearer;
And even if the coat be mended,
'Twill grow the dearer.

Show me the wife that's on the watch
For every little rent or scratch,
And cures it with a timely patch,—
Before you know it,—

She is a woman fit to match
A lord or poet.

Than home no place can more delight her,
Her hearth is bright, her smile is brighter,
Her heart makes every other lighter,
And his the most
Whose greatest joy is to requite her,—
His pride and boast.

Here I must leave thee, queen of hearts,
To shoot thy polished, barbless darts,
And bind the perforated parts,
With skill creative;
Of Paradise thy art of arts
Was well a native.

While love has happiness to make,
Thy crown no man shall ever take,
Thy charm no man shall ever break;
At least, no true man;
Home shall be dearer for thy sake,
And so shall woman.—*Sel.*

ENIGMA.—No. 35.

I am composed of 16 letters.
My 1, 14, 4, 12, 13, is a gulf of Asia.
My 2, 12, 13, 6, 16, is an island on the
coast of Ireland.
My 3, 5, 9, 9, 10, 6, 1, are falls in New
Jersey.
My 4, 2, is a river in Virginia.
My 5, 4, 4, 11, 15, 10, is a county in Mis-
sissippi.
My 6, 9, 16, 2, is an island on the coast of
Scotland.
My 7, 5, 4, 11, 15, is a town in Brazil.
My 8, 2, 10, is a town in Peru.
My 7, 13, 8, 7, is a lake in Scotland.
My 10, 14, 9, 4, 6, 7, is a city.
My 11, 16, 3, 9, is a range of Mountains in
Europe.
My 12, 13, 8, 7, 2, is a country in Asia.
My 13, 5, 15, 16, is a county in Georgia.
My 14, 4, 6, 1, 10, is a city in the United
States.
My 15, 14, 12, 11, 9, is a county in Ohio.
My 16, 14, 8, 9, 7, 5, is a river in Europe.
My whole was a distinguished naval officer.
Seven Islands, Va. MARTIN F. TUTTILER.

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